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			ART UNIT 2158	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/620,797

**Applicant(s)**

CHINNER ET AL.

**Examiner**

PATRICK A. DARNO

**Art Unit**

2158

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 7-10, 17-19 and 26-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-28 are pending in this office action.

#### **New Grounds of Rejection**

2. After a further search, new prior art was discovered. This prior art was not previously made of record. As a result, prosecution of the instant application is reopened in light of the newly discovered prior art.

#### **Specification Objections**

3. The specification is object to as failing to provide proper antecedent basis for the claimed subject matter. See 37 C.F.R. 1.75(d)(1) and MPEP section 608.01(o). Specifically, claims 11-19 recite a "...at least one *computer readable medium*...". However, there is no antecedent basis in the specification for the phrase "computer readable medium." Appropriate correction is required in order to recite the claim language in a manner which is consistent with the terminology of the specification. This could be done in one of two ways: 1) amend the specification without adding new matter [if possible] to include the term "computer readable medium" and its proper scope, or 2) amend the claims to use terminology already existing in the specification as filed. Appropriate correction is required.

With respect to this issue, it is noted that a proper conclusion as to whether the computer readable medium of claims 11-19 cannot be made at this time since the scope of the phrase "computer readable medium" cannot be ascertained by the Applicant's specification. As a result,

Applicant's claims 11-19 will analyzed for potential deficiencies under 35 U.S.C. 101 after the objection to the specification has been resolved.

**Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claim 1, the claim recites a method. Since the claim is directed to a method, the claim fits within one of the four statutory categories of invention. However, the courts have made clear that certain methods may not qualify as a statutory "process" within the meaning of 35 U.S.C. 101. Such judicial exceptions to statutory subject matter include 1) Laws of Nature, 2) Physical Phenomena, and 3) Abstract Ideas. Claim 1 is rejected under 35 U.S.C. 101 because it appears that it can be interpreted as being directed to merely an abstract idea.

The Examiner has made this determination because entire method set forth in the claim 1 could be performed inside the head of a human being as a thought process. A user could surely ascertain or meter the appropriate amount of resources for a task, and then determine an appropriate time to schedule such resources. Never does claim 1 require a computer, machine, or other device such that this allocation process would actually have to be implemented in some form of practical application of the abstract idea. On the contrary, the entire claim, from start to finish, could be executed as a thought, or abstract idea, in the head of a human being. As a result, claim 1 is rejected under 35 U.S.C. 101.

Claims 2-10 are rejected because fail to resolve the deficiencies of claim 1.

It is noted for the record that claims 6 and 7 refer to establishing a certain number of threads for executing a resource request. It is acknowledged that threads are basic processes that are executed via computer processor to carry out tasks. However, these threads, as claimed, are never executed. On the contrary, only a determination as to the number of threads desired to execute a task is made. And that determination could reasonably be performed as a through process in the head of a human being. As a result, the limitations claim s 6 and 7 fail to resolve the deficiencies of claim 1.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 11-15, and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,065,624 issued to William Zahavi [hereinafter “Zahavi”].

#### **Claim 1:**

Zahavi discloses a method of processing resource acquisition requests [*Zahavi: abstract and column 2, line 58 - column 3, line 1 and column 5, lines 48-51 and Figs. 4-12; Note that Figs. 4-12 describe the entire method of determining and processing resource acquisition requests submitted via Fig. 13.*], comprising:  
  
scheduling execution of the resource acquisition requests in accordance with user configurable metering [*Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and*

*column 9, lines 35-40 and Figs. 13 and 14; Note particularly that the amount of reads and writes [acquisition requests] are scheduled for the application. This scheduling is carried out in accordance with a "user configurable metering" that is set via the graphical user interface in Figs. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d.].*

**Claim 2:**

Zahavi discloses all the elements of claim 1, as noted above, and Zahavi further comprising sorting the resource acquisition requests into at least two separate queues for different request types [Zahavi: Fig. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d and column 8, lines 22-50; Note that Fig. 14, elements 524a-d disclose the user or administrator's control over the queues of incoming traffic. In all, the incoming traffic is sorted and divided into at least 4 queues as set forth in Fig. 14, elements 524a-d.].

**Claim 3:**

Zahavi discloses all the elements of claim 2, as noted above, and Zahavi further discloses configuring metering of the resource acquisition requests in response to input from an administrator of the system [Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and column 9, lines 35-40 and Figs. 13 and 14; Note particularly the input provided by the user.].

**Claim 4:**

Zahavi discloses all the elements of claim 3, as noted above, and Zahavi further discloses wherein said configuring includes specifying a first number of resource acquisition requests from a first queue to be performed [Zahavi: Fig. 14, elements 524c; From a first queue, Zahavi discloses specifying 10 percent sequential read requests. This clearly discloses specifying a first number [10 percent] of resource

*acquisition requests [sequential read requests].] for a second number of the resource acquisition requests from a second queue [Zahavi: Fig. 14, elements 524d; From a second queue, Zahavi discloses specifying 40 percent read requests.], as long as the resource acquisition requests are queued in both the first and second queues [Zahavi: Fig. 14, elements 524a-d; This allocation must be contingent on a set amount of resource acquisition requests being present in a queue already. After all, 10%, 40%, or x% of 0 requests would be 0. If that arises, that particular queue of operations would just be ignored. In the example, here, note that while the two numbers assigned to each queue were different, alternatively, the user could set each number for each queue to be the same].*

**Claim 5:**

Zahavi discloses all the elements of claim 4, as noted above, and Zahavi further discloses wherein said configuring includes specifying a corresponding number of the resource acquisition requests to be executed for each of the at least two separate queues when more than two of the separate queues are provided [Zahavi: Fig. 14, elements 524a-d; It appears that Zahavi discloses specifying a corresponding number [30%, 20%, 10%, and 40% respectively] of resource acquisition requests [random read hits, random read misses, sequential reads, and writes] to be executed for at least two separate queues [sequential reads and writes] with as many as four queues [more than 2] provided [random read hits, random read misses, sequential reads, and writes].].

**Claim 11:**

Zahavi discloses at least one computer readable medium storing at least one program embodying a method of processing requests to access computing resources [Zahavi: abstract and column 2, line 58 - column 3, line 1 and column 3, lines 9-13 and column 5, lines 48-51 and Fig. 2 and Figs. 4-12; Note that Figs. 4-12 describe the entire method of determining and processing resource acquisition requests

*submitted via Fig. 13. Also, note Fig. 2 which discloses the computer readable medium embodiment of the invention.], said method comprising:*

*scheduling execution of the resource acquisition requests in accordance with user configurable metering [Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and column 9, lines 35-40 and Figs. 13 and 14; Note particularly that the amount of reads and writes [acquisition requests] are scheduled for the application. This scheduling is carried out in accordance with a "user configurable metering" that is set via the graphical user interface in Figs. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d.].*

**Claim 12:**

*Zahavi discloses all the elements of claim 11, as noted above, and Zahavi discloses comprising sorting the resource acquisition requests into at least two separate queues for different types of requests [Zahavi: Fig. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d and column 8, lines 22-50; Note that Fig. 14, elements 524a-d disclose the user or administrator's control over the queues of incoming traffic. In all, the incoming traffic is sorted and divided into at least 4 queues as set forth in Fig. 14, elements 524a-d.].*

**Claim 13:**

*Zahavi discloses all the elements of claim 12, as noted above, and Zahavi further comprising configuring metering of the resource acquisition requests in response to input from an administrator of the system [Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and column 9, lines 35-40 and Figs. 13 and 14; Note particularly the input provided by the user.].*

**Claim 14:**



Zahavi discloses all the elements of claim 13, as noted above, and Zahavi further discloses wherein said configuring includes specifying a first number of the resource acquisition requests from a first queue to be performed [Zahavi: Fig. 14, elements 524c; From a first queue, Zahavi discloses specifying 10 percent sequential read requests. This clearly discloses specifying a first number [10 percent] of resource acquisition requests [sequential read requests].] for a second number of the resource acquisition requests from a second queue [Zahavi: Fig. 14, elements 524d; From a second queue, Zahavi discloses specifying 40 percent read requests.], as long as the resource acquisition requests are queued in both the first and second queues [Zahavi: Fig. 14, elements 524a-d; This allocation must be contingent on a set amount of resource acquisition requests being present in a queue already. After all, 10%, 40%, or x% of 0 requests would be 0. If that arises, that particular queue of operations would just be ignored. In the example, here, note that while the two numbers assigned to each queue were different, alternatively, the user could set each number for each queue to be the same.].

**Claim 15:**

Zahavi discloses all the elements of claim 14, as noted above, and Zahavi further discloses wherein said configuring includes specifying a corresponding number of the resource acquisition requests to be executed for each of the at least two separate queues when more than two of the separate queues are provided [Zahavi: Fig. 14, elements 524a-d; It appears that Zahavi discloses specifying a corresponding number [30%, 20%, 10%, and 40% respectively] of resource acquisition requests [random read hits, random read misses, sequential reads, and writes] to be executed for at least two separate queues [sequential reads and writes] with as many as four queues [more than 2] provided [random read hits, random read misses, sequential reads, and writes].].

**Claim 20:**

Zahavi discloses a computer system that processes resource acquisition requests [Zahavi: abstract and column 2, line 58 - column 3, line 1 and column 3, lines 4-9 and column 5, lines 48-51 and Fig. 1 and Fig. 2 and Figs. 4-12; Note that Figs. 4-12 describe the entire method of determining and processing resource acquisition requests submitted via Fig. 13. Also note Zahavi: column 3, lines 4-9, Fig. 1, and Fig. 2 disclosing the computer system embodiment of the invention.], comprising:

at least one processor programmed [Zahavi: column 5, line 67 – column 6, line 3] to schedule execution of the resource acquisition requests in accordance with user configurable metering [Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and column 9, lines 35-40 and Figs. 13 and 14; Note particularly that the amount of reads and writes [acquisition requests] are scheduled for the application. This scheduling is carried out in accordance with a "user configurable metering" that is set via the graphical user interface in Figs. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d.].

**Claim 21:**

Zahavi discloses all the elements of claim 20, as noted above, and Zahavi further discloses wherein said at least one processor is further programmed to sort the resource acquisition requests into at least two separate queues for different request types [Zahavi: Fig. 13, element 524 and Fig. 14, elements 524a, 524b, 524c, 524d and column 8, lines 22-50; Note that Fig. 14, elements 524a-d disclose the user or administrator's control over the queues of incoming traffic. In all, the incoming traffic is sorted and divided into at least 4 queues as set forth in Fig. 14, elements 524a-d.].

**Claim 22:**

Zahavi discloses all the elements of claim 21, as noted above, and Zahavi further discloses:

further comprising an input unit to receive input from an administrator of the system

*[Zahavi: Fig. 2, elements 146, 148 and Fig. 13, element 524 and Fig. 14, elements 524a-d], and*

wherein said at least one processor is further programmed to configure metering of the resource acquisition requests in response to the input from the administrator of the system

*[Zahavi: column 8, lines 22-25 and column 8, lines 41-50 and column 9, lines 10-22 and column 9, lines 35-40 and Figs. 13 and 14; Note particularly the input provided by the user.].*

**Claim 23:**

Zahavi discloses all the elements of claim 22, as noted above, and Zahavi further discloses, wherein said at least one processor is further programmed to specify a first number of the resource acquisition requests from a first queue to be performed *[Zahavi: Fig. 14, elements 524c; From a first queue, Zahavi discloses specifying 10 percent sequential read requests. This clearly discloses specifying a first number [10 percent] of resource acquisition requests [sequential read requests].]* for a second number of the resource acquisition requests from a second queue *[Zahavi: Fig. 14, elements 524d; From a second queue, Zahavi discloses specifying 40 percent read requests.]*, as long as the resource acquisition requests are queued in both the first and second queues *[Zahavi: Fig. 14, elements 524a-d; This allocation must be contingent on a set amount of resource acquisition requests being present in a queue already. After all, 10%, 40%, or x% of 0 requests would be 0. If that arises, that particular queue of operations would just be ignored. In the example, here, note that while the two numbers assigned to each queue were different, alternatively, the user could set each number for each queue to be the same.].*

**Claim 24:**

Zahavi discloses all the elements of claim 23, as noted above, and Zahavi further discloses wherein said at least one processor is further programmed to specify a corresponding

number of the resource acquisition requests to be executed for each of the at least two separate queues when more than two of the separate queues are provide [Zahavi: Fig. 14, elements 524a-d; It appears that Zahavi discloses specifying a corresponding number [30%, 20%, 10%, and 40% respectively] of resource acquisition requests [random read hits, random read misses, sequential reads, and writes] to be executed for at least two separate queues [sequential reads and writes] with as many as four queues [more than 2] provided [random read hits, random read misses, sequential reads, and writes].].

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 16, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zahavi, and further in view of U.S. Patent Application Publication issued to Steve Klotz et al. [hereinafter "Klotz"].

#### **Claim 6:**

Zahavi discloses all the elements of claim 4, as noted above, but Zahavi fails to expressly disclose establishing a maximum number of threads for executing resource acquisition requests in response to the input from the administrator.

However, Klotz discloses establishing a maximum number of threads for executing resource acquisition requests in response to the input from the administrator [Klotz: paragraph [0051]; Note particularly that the user has the discretion of setting the "...number of test threads to create..."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Zahavi with the teachings of Klotz noted above. The skilled artisan would have been motivated to improve the teachings of Zahavi such that the user could test utilities could be scalable to test a variety of system sizes and configurations [Klotz: paragraph [0051], lines 11-12].

**Claim 16:**

Zahavi discloses all the elements of claim 14, as noted above, but Zahavi fails to expressly disclose establishing a maximum number of threads for executing resource acquisition requests in response to the input from the administrator.

However, Klotz discloses establishing a maximum number of threads for executing resource acquisition requests in response to the input from the administrator [Klotz: paragraph [0051]; Note particularly that the user has the discretion of setting the "...number of test threads to create..."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Zahavi with the teachings of Klotz noted above. The skilled artisan would have been motivated to improve the teachings of Zahavi such that the user could test utilities could be scalable to test a variety of system sizes and configurations [Klotz: paragraph [0051], lines 11-12].

**Claim 25:**

Zahavi discloses all the limitations of claim 23, as noted above, but Zahavi fails to expressly disclose at least one processor further programmed to establish a maximum number of

threads for executing resource acquisition requests in response to the input from the administrator.

However, Klotz discloses at least one processor further programmed to establish a maximum number of threads for executing resource acquisition requests in response to the input from the administrator [Klotz: paragraph 0051]; Note particularly that the user has the discretion of setting the "...number of test threads to create...".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Zahavi with the teachings of Klotz noted above. The skilled artisan would have been motivated to improve the teachings of Zahavi such that the user could test utilities could be scalable to test a variety of system sizes and configurations [Klotz: paragraph 0051], lines 11-12].

#### **Allowable Subject Matter**

Claims 7, 17, and 26 are objected to as being allowable if 1) the claims amended to overcome the deficiencies under 35 U.S.C. 101, and 2) the claims were rewritten to include all the elements of their respective parent claims. The limitations of claims 7, 17, and 26 when combined with all limitations of each of their parent claims, would result in a claim that is novel and non-obvious over the prior art of record. For example, while Zahavi clearly discloses the claimed "...user configurable metering..." of resource acquisition requests and Klotz clearly discloses selecting the amount of threads to be utilized to perform a task, the combination of Zahavi and Klotz fails to specifically disclose determining wherein the maximum number of threads for executing resource acquisition requests is at least as large as a sum of the first and second numbers.

As a result, claims 7, 17, and 26, when combined with all of the limitations of their corresponding parent claims, results in a combination of elements which is both novel and non-obvious over the prior art of record.

Furthermore, claims 8-10, 18, 19, 27, and 28 are objected to as being allowable as a result of their dependency on at least one of claims 7, 17, and 26. If claims 7, 17, and 26 are rewritten to include each of the limitations of their corresponding parent claims, then claims 8-10, 18, 19, 27, and 28 would become allowable as a result of their dependency on an allowed parent claim.

#### **Examiner Notes**

- A rejection of system claims 20-28 was considered under 35 U.S.C. 101. However, it appears that the claimed system is directed to a combination of software and hardware elements which sufficiently place the Applicant's claimed system into the machine statutory category of invention under 35 U.S.C. 101. This decision was made because 1) the claim limitations require at least one processor and 2) the Applicant's specification discusses the claimed system in terms of a combination of hardware [computers] and software [programmed functionality]. With respect to the second point highlight here it is important to note paragraph [0016] of Applicant's specification. This paragraph describes the system in the context of Fig. 1 which includes client computers, files servers, and other hardware components. Finally, nothing in the Applicant's specification provides support for interpreting system claims 20-28 such that claims 20-28 could be directed to software per se. In the event that such evidence arises, a rejection under 35 U.S.C. 101 may need to be reconsidered for system claims 20-28.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. DARNO whose telephone number is (571)272-0788. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on (571) 272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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01-20-2011

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